

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 09/434,121

REMARKS

Reconsideration and allowance of subject application are respectfully requested. By this Amendment, Applicant has canceled claims 3 and 12 without prejudice or disclaimer. Thus, claims 1, 2, 4-11 and 13-17 are now pending in the application. In response to the Office Action (Paper No. 5), Applicant respectfully submits that the pending claims define patentable subject matter.

I. Rejection of claims 3-9 and 12-17 under 35 U.S.C. § 112, second paragraph

The Examiner maintains that claims 3-9 and 12-17 are indefinite because in claims 3 and 12, the phrase “said printing region being different in a shape” is unclear. By this Amendment, Applicant has amended independent claims 1 and 11 to incorporate the subject matter of dependent claims 3 and 12, respectively, and amended the claim language incorporated from claims 3 and 12 to improve clarity. Accordingly, the Examiner is requested to remove the § 112, second paragraph, rejection of record.

II. Rejection of claims 1, 2, 10 and 11 under 35 U.S.C. § 102(e) as being anticipated by Yeoh et al.

A. The Present Invention

The present invention is directed to a printer and printing method for designating different printing modes between a plurality of types of recording sheets, such as recording sheets of a standard type and a 16-frame sticker type. As shown in Figures 1-3, a color thermal

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printer 10 includes a printer body 11 and a sheet supply container 12 mounted in the printer body 11 in a removable manner. A display device 13 is connected with a printer component of the thermal printer 10, and displays an image to be printed.

The sheet supply container 12 includes a printed circuit board 40 including a first contact pattern 40a, and a read only memory (ROM) 41 which stores type information of the recording sheets 33 (a size and a type of the recording sheets 33) contained in the container body 30. The printer body 11 includes a pin-shaped contact member 42 as second contact pattern. When the sheet supply container 12 is set in a sheet supply position, the contact member 42 contacts the contact pattern 40a, thereby connecting a system controller 45 incorporated in the printer body 11 with the ROM 41. The system controller 45 controls various components of the printer body 11 and effects printing operation according to a frame stored in a smart media 16 inserted in the printer body 11.

As shown in Figures 4-6, the type information from the ROM 41 is evaluated to determine whether the sheet supply container 12 contains a standard type of the recording sheets or a 16-frame sticker type of the recording sheets. Based on the evaluation of the type information from the ROM 41, a standard printing mode or a 16-frame sticker printing mode is designated, and a standard printing menu 50 or a sticker printing menu 60 is displayed in the display device 13 for designating a particular frame to be printed and the number of prints to be produced via input keys 20-25 disposed on the printer body 11.

Alternatively, the type information may be provided by a predetermined pattern of projected and retracted segments, white and black dots, a bar code, or other indicia disposed on

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the sheet supply container and read by a photo sensor provided in the printer. Further, the sheet supply container may be provided with a magnetic recording medium for storing the type information, and a magnetic headed may be provided in the loading slot for reading the type information from the magnetic recording medium. Lastly, the type information may be prerecorded on a rear surface or near an edge of the recordings sheets, and a reader may be provided in the loading slot for reading the type information from the recording sheets.

B. Disclosure of Yeoh et al.

Yeoh et al. (hereafter "Yeoh") is directed to a color inkjet printer which switches to a best print mode relative to minimum operating ambient temperature and a user selected printing media selected from a group of different types of medium. As shown in Figures 1 and 2, a printer 10 is system component in a personal computer system 70 and responds to print commands from a central processing unit 72 to print various full color and black print images in the form of objects or textual information which has been stored in a storage media 82, such as a removable compact disc, or a memory unit 74 associated with the a central processing unit 72. The printer 10 includes a controller 88 coupled to a media selection circuit 94 and a temperature sensor circuit 96. The media selection circuit 94 generates a media signal that is indicative of the type of media that has been selected by a user for a current printing activity. The selection circuit 94 defaults to the most common media utilized by the printer 10 by defaulting to a cotton paper bond selection.

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In operation, the computer system 70 causes a print command along with the object or textual information to be printed to be sent to the printer 10. The controller 88 determines via a control algorithm 100 whether the object or textual information to be printed should be printed in a user selected print mode or an automatic best print mode based upon a current ambient temperature and the type of medium being utilized in the printing activity. In particular, the controller 88 executes a medium selection subroutine 200 to determine whether the user selected medium is the correct medium for the current printing activity using a lookup table stored in the memory unit 64. If the user selected medium is not the correct medium type for the selected printing activity, the controller 88 causes the printing activity to be performed in the printing mode selected by the user. However, if the user selected medium is the correct medium type for the selected printing activity, the controller 88 determines the best printing mode for the selected printing activity relative to the operating temperature detected by the temperature sensor circuit 96 and then automatically selects the best mode. The print command is then executed by the controller 88 to cause object or textual information sent to the printer 10 to be printed on the selected medium.

C. Analysis

As discussed above, independent claims 1 and 11 have been amended to incorporate the subject matter of dependent claims 3 and 12, respectively. Amended independent claim 1 recites “an input section operable to automatically input type information representing one of said types of said recording material, wherein each of said types of said recording material has at least one

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printing region having a shape or a position which is different than said at least one printing region of other types of said recording material; and a controller for designating a printing mode in accordance with said type information, and for printing an image to said recording material in accordance with said designated printing mode, said controller processing said image for laying out said image in said printing region in accordance with said designated printing mode."

Amended claim 10 recites similar limitations.

Applicant respectfully submits that amended independent claims 1 and 10 would not have been anticipated by or rendered obvious in view of Yeoh. In particular, Applicant respectfully submits that Yeoh does not teach or suggest automatically inputting type information representing one of the types of recording material, wherein each of the types of said recording material has at least one printing region having a shape or a position which is different than the at least one printing region of other types of the recording material, as claimed. That is, the present invention teaches that the printer is provided with input section which automatically inputs the type information representing one of the types of recording material to the system controller of the printer when the sheet supply container is loaded in the loading slot of the printer. As a result, different modes of printing may be designated for a plurality of types of recording material having printing regions with different shapes or positions.

On the other hand, Yeoh discloses determining whether to change a user selected print mode (i.e., printing speed) based on the type of recording medium and the ambient temperature. Yeoh simply teaches that type of media to be employed for printing is selected or entered by a user and transferred to the printer via the print command from the personal computer. The media

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selection circuit then generates a media signal that is indicative of the type of media that has been selected by a user for a current printing activity. Further, Yeoh does not teach or suggest that the printer and printing method utilize multiple types of recording material having printing regions with different shapes or positions.

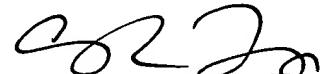
Accordingly, Applicant respectfully submits that independent claims 1 and 10, as well as dependent claims 2, 4-9, 11 and 13-17, should be allowable because the applied reference does not teach or suggest all of the features of the claims.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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